DIRECT TESTIMONY OF
JOHN H. RAFTERY
ON BEHALF OF
DOMINION ENERGY SOUTH CAROLINA, INC.
DOCKET NO. 2019-239-E

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND POSITION.

A. My name is John H. Raftery, and my business address is 220 Operation Way, Cayce, South Carolina. I am the Director of Rates and Regulatory Affairs for Dominion Energy South Carolina, Inc. ("DESC" or the "Company").[1]

Q. DESCRIBE YOUR EDUCATIONAL BACKGROUND AND BUSINESS EXPERIENCE.

A. I am a graduate of Northwestern University with a Bachelor of Science degree in Mechanical Engineering. I began my public utilities career in 1994 as an Information Technology Management Consultant with Price Waterhouse and continued with Oracle Corporation in 1998. I joined SCANA Corporation in 2003 as a Client Manager in the Customer Systems Support Organization and gained the responsibilities of the Customer Service Training Department several years later. In 2010, I assumed responsibility for the SCANA Contact Centers and Technology Services, with the addition of SCE&G's Business Offices in 2013. In 2014, I became General Manager of Renewable Products/Services and

[1] South Carolina Electric & Gas Company ("SCE&G") changed its name to Dominion Energy South Carolina in April 2019, as a result of the acquisition of SCANA Corporation by Dominion Energy, Inc. For consistency, I use "DESC" to refer to the Company both before and after this name change.

Energy Demand Management. In March 2019, I assumed my current role of Director of Rates and Regulatory Affairs of DESC.

Q. WHAT ARE YOUR DUTIES WITH DESC?

A. As Director of Rates and Regulatory Affairs, I am responsible for the design and administration of DESC's electric and natural gas rates and tariffs, including the electric fuel adjustment and gas cost adjustment. In addition, I am responsible for the Company's electric and natural gas cost allocation studies and the regulatory accounting function. As noted previously, in my prior role, I oversaw all aspects of DESC's Demand Side Management ("DSM") programs, including their selection, implementation, and related rate riders.

Q. HAVE YOU EVER TESTIFIED BEFORE THIS COMMISSION?

A. Yes. I have testified before the Public Service Commission of South Carolina (the "Commission") in previous proceedings.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to give an overview of the Company's philosophy regarding DSM programs and commitment to the same and provide background and an overview of DESC's Request for Approval of an Expanded Demand Side Management Plan and a Modified Demand Side Management Rate Rider that was filed in this Docket (the "Request").

Q. WHO ARE THE OTHER WITNESSES THAT WILL PROVIDE DIRECT TESTIMONY FOR DESC?

A. The other DESC witnesses providing direct testimony are:

1. Therese Griffin, Manager of Energy Efficiency and Demand Management, DESC. Ms. Griffin will testify on the current DSM Programs, their success, and the proposed suite of DSM programs.
2. David K. Pickles, Senior Vice President, ICF Resources, LLC. Mr. Pickles will testify concerning the comprehensive review of potential energy efficiency and demand response programs that he and his organization conducted for DESC beginning in June 2018, and completed June 2019.
3. Allen Rooks, Manager of Electric Pricing and Rate Administration, DESC. Mr. Rooks will testify concerning the Company's proposal to recover its DSM costs through the continuation of the current rate rider, modified to reflect a shorter amortization period, a changed carrying costs rate, and an increased shared savings incentive.

Q. WHAT IS THE COMPANY REQUESTING IN THIS PROCEEDING?

A. In January 2018, the Company informed the Commission it was commissioning a new DSM Potential Study to serve as the basis of an updated DSM portfolio for roll out in Program Year ("PY") 10. *See* Docket No. 2018-42-E, Annual Update on Demand Side Management Programs and Petition to Update Rate Rider ¶¶ 28-30 (Jan. 30, 2018). That study is now complete, and based on it, the Company has filed the application in this proceeding seeking approval of ten DSM programs—seven for the residential market and three for the commercial and industrial market. Eight of these programs are an expansion or modification of the current programs, and two are new programs. No programs currently in effect are being eliminated. The Company is also requesting to maintain in effect the existing cost recovery mechanism, modified to reflect a shorter amortization period, a changed carrying costs rate, and an increased shared savings incentive.

COMMITMENT TO DSM PROGAMS

Q. PLEASE EXPLAIN DESC'S PHILOSPHY ON DSM PROGRAMS.

A. For the past ten years, DESC has come before this Commission with a comprehensive set of DSM programs aimed at providing realistic opportunities for customers to reduce their energy consumption. These programs have been well-researched, and based on current market data and operating experience, DESC has modified, expanded or ended programs as market data and operating results have dictated.

In evaluating proposed programs for the current request, DESC has looked for ways to continue to improve its existing suite of programs, to modify programs to better reach low and moderate income and small business customer groups, and to refocus programs to reflect current realities in the DSM marketplace.

Q. WHAT ROLES HAVE STAKEHOLDER INPUT GROUPS, TRADE ALLIES AND CUSTOMER SURVEYS PLAYED IN FORMULATING THE PROPOSED PROGRAMS?

A. As Company Witness Griffin explains, since initiating this planning process in 2017, DESC has worked consistently with its stakeholders to gain a range of input and buy-in to its proposed programs. The Commission established the DSM Advisory Group for DESC in 2009, and that group has been consulted at each step of the planning process for these programs. Trade allies have been brought into the discussion to ensure that the proposed programs will be attractive to customers and are practicable from an implementation standpoint. Through evaluation and implementation activities, residential and non-residential customers have been surveyed, and input has been received on program awareness, satisfaction, likelihood to participate, barriers and drivers to energy efficiency. Working with these groups, DESC has taken a collaborative approach to formulating a proposed suite of programs that will increase DESC's financial commitment to energy efficiency measures by nearly double. DESC hopes that through these actions, its commitment to DSM programs is evident.

Q. HAS THE COMPANY INVESTED IN DSM PROGRAMS SINCE 2010, AND WHAT HAS THAT INVESTMENT ACCOMPLISHED?

A. Yes. Since 2010, the Company has invested over \$113 million in DSM programs through PY8. This investment has reduced customers' energy usage by 797,000 megawatt hours ("MWh"), which is equivalent to the power needed to supply 67,463 homes for a year. This investment has also avoided the emission of 563,384 metric tons of carbon dioxide, the amount that would be emitted by approximately 120,000 automobiles.

Q. HOW HAVE DSM PROGRAMS EVOLVED SINCE 2009?

A. Over the past ten years, federal and state efficiency standards and DESC's DSM programs have captured a great deal of the easily-achieved energy efficiency gains on our system. Under the mandates of the Energy Independence and Security Act of 2007, millions of incandescent light bulbs have been replaced by CFLs, and now LEDs. Federal mandates have greatly increased the efficiency of the heating and cooling units being installed on our system, including air conditioning units and heat pumps. Building codes, construction techniques and home building practices have resulted in increased home energy efficiency and better insulated houses. As a result, the target markets for DSM programs have shifted. Achieving additional savings has become more difficult and more expensive in light of past efficiency gains and current efficiency standards. This shift has required us to reevaluate how to engage and incentivize customers to participate in cost-effective DSM programs going forward.

This shift can be seen in the suite of programs proposed here, which focus on increasing the efficiency of existing housing and reaching underserved low and moderate income and small business customer groups. Under these proposed programs, we will work extensively with underserved customer groups through one-on-one programs that provide them with direct install measures and energy consulting. One lead program, the Residential Neighborhood Energy Efficiency program ("NEEP"), has been successful in delivering direct install energy saving measures to low-income households through carefully organized and publicized neighborhood sweeps. The program will be prioritized with significantly increased funding and resources so that more low-income communities can benefit. DESC hopes to expand participation in the program by approximately 35% over the next five years.

For small business customers, our goal is to increase participation in our direct install program by 75%. This program offers turnkey services tailored to help small business owners that are less likely to have access to trained energy efficiency personnel or consultants. Additionally, new programs to serve customers in multifamily rental units will be started, as well as a new program for municipal lighting customers and a new offering for agricultural customers.

At the same time, we will expand our knowledge-based Home Energy Reports program. This program provides customers with information that they can use to help identify, analyze and act upon energy efficiency measures and behaviors. It will be expanded and will focus on those customers with the most potential to reduce their energy usage. This program is anticipated to be very cost effective and has the potential to create significant levels of energy savings.

BACKGROUND OF DSM PROCEEDINGS

Q. PLEASE BRIEFLY SUMMARIZE THE REGULATORY BACKGROUND OF DESC'S CURRENT SUITE OF DSM PROGRAMS.

A. The predecessor to the current suite of DSM programs was adopted in Order No. 2010-472 and originally included a suite of nine residential and two commercial and industrial DSM programs. Order No. 2010-472 also authorized the Company to establish a rate rider to recover DSM costs. The authorization for cost recovery extended for three program years, concluding on November 30, 2013.

In 2013, as the end of that three-year period approached, the Company filed for approval of a revised suite of eleven DSM programs, including nine residential and two commercial programs. The Commission approved this suite of programs in Order No. 2013-826.

Pursuant to Order Nos. 2010-472 and 2013-826, the Commission authorized DESC to modify, amend, terminate or add measures or programs to its suite of DSM programs from time to time upon notice to the Commission and the Office of Regulatory Staff ("ORS"). The Commission further reserved the right to modify the terms and conditions of the DSM rate rider mechanism and associated matters at any time. However, to provide a measure of stability and predictability to DESC's DSM offerings, Order No. 2013-826 also precluded parties from filing petitions to modify DSM programs or the DSM rate recovery rider for six years from the date of the order. That six-year term expires on November 26, 2019.

Q. IS THE COMPANY MAKING ANY PROCEDURAL REQUESTS IN THIS DOCKET?

A. Yes. For the reasons explained by Company Witness Griffin, and in the interest of the orderly administration of the DSM rate rider and the timely transition to a new suite of DSM programs, DESC filed the current request before the expiration of the deadline set in Order No. 2013-826. DESC seeks an order allowing the requested changes to go into effect as of December 1, 2019. DESC believes that this request is consistent with its right to modify programs at any time. However, DESC also requests that the Commission waive or modify the timing provisions of Order No. 2013-826 to the extent that any such waiver or modification is required.

<u>OVERVIEW OF REQUEST</u>

Q. HOW DID DESC EVALUATE ITS PROPOSED SUITE OF PROGRAMS FOR THIS REQUEST?

A. DESC, through independent third-party consultants, conducted a comprehensive potential study and DSM program analysis. The resulting report completed by ICF International, Inc. ("ICF") (the "Potential Study") was attached as Exhibit 1 to the Request. ICF is the same consulting firm that conducted the potential study in 2009 and the comprehensive report and DSM portfolio plan in 2013. DESC has accumulated a great deal of experience with DSM in its service territory. This study is primarily grounded in data based on actual program experience and results achieved within our service territory. Thus, the Potential Study is closely aligned with DESC's experience, service territory and customer base.

Q. DID THE POTENTIAL STUDY EVALUATE BOTH DSM AND DEMAND RESPONSE ("DR") PROGRAMS?

A. Yes, the Potential Study evaluated both DSM and DR programs.

Q. WHAT DSM PROGRAMS ARE BEING PROPOSED?

A. As summarized in the Request and as explained by Company Witness Griffin, the Company proposes to provide seven residential and three commercial and industrial DSM programs going forward.

These programs are

Residential Programs

- Residential Neighborhood Energy Efficiency
- Residential Multifamily
- Residential Appliance Recycling
- Residential Heating & Cooling
- Residential Home Energy Check-Up
- Residential Home Energy Reports
- Residential EnergyWise Savings Store (Online Store)

Commercial and Industrial Programs

- Commercial Small Business Direct Install
- Commercial and Industrial EnergyWise for your Business (including Agricultural)
- Municipal LED Lighting

All of the proposed programs are cost-effective under the Total Resource Cost ("TRC") test, including the Residential Neighborhood Energy Efficiency program, which, per Order No. 2010-472, is not required to be cost-effective.

Q. ARE DR OFFERINGS HISTORICALLY ADMINISTERED AS DSM PROGRAMS?

A. No, DR offerings have not historically been administered or reported as DSM programs, and the cost of DR rates and credits have not historically been reflected in DSM program costs but have been considered in setting base rates for the retail electric system.

Q. WHAT DR PROGRAMS ARE CURRENTLY OFFERED?

A. DESC currently offers one Conservation and two Time-of-Use ("TOU") rates to residential customers. DESC also offers industrial and commercial customers an Interruptible Rate Rider, a Standby Generator Program, TOU Rates and, for certain existing industrial and commercial customers, a Real Time Pricing Tariff that is not open to new customers. DESC intends to continue offering the rate-related DR programs provided for in its filed Tariffs.

In Order No. 2018-322(A), issued in May 2018, the Commission required that "SCE&G shall investigate and implement economic demand side management and energy efficiency programs with an emphasis on decreasing the newly developed winter peak." This investigation was performed as part of the Potential Study.

Q. WAS AN EXPANSION OF DR PROGRAMS IDENTIFIED AS BEING COST JUSTIFIED BY THE POTENTIAL STUDY TO DECREASE THE WINTER PEAK?

A. No, the Potential Study concluded that expanded DR programs were not cost-effective to decrease winter peak for the five-year planning timeframe that would apply to such programs. As a result, no expansion of DR programs is being proposed at this time.

Q. PLEASE EXPLAIN THE RESULTS OF THE POTENTIAL STUDY WITH RESPECT TO EXPANDING EXISTING DR PROGRAMS.

A. The Potential Study found that expansion of the existing DR programs was not a feasible means to reduce winter peak. Two factors led to this conclusion. One relates to customer needs and the other to operating parameters. As to customer needs, DR programs for residential and commercial customers will not be cost effective on our system until Advanced Metering Infrastructure ("AMI") is installed. For that reason, at present, interruptible customers must come from commercial and industrial customers in the Large General Service customer class. The winter peaks occur on our system during the morning hours in periods of extreme cold weather. Industrial and commercial customers typically are not able to interrupt their electric service at that time because heating is important for maintaining reasonable conditions for their employees, their businesses and their processes. Additional standby generation capacity is not practical because the United States Environmental Protection Agency prohibits most standby generators from running more than 500 hours per year. This limits participation in the Standby Generator Program. Company Witness Pickles will sponsor the Potential Study and can testify in more detail concerning its conclusions. But the conclusion of the study was that additional or expanded DR measures to reduce winter peak were not justified at this time.

Q. PLEASE EXPLAIN THE RESULTS OF THE POTENTIAL STUDY WITH RESPECT TO ADDING NEW COMMERCIAL AND RESIDENTIAL DR PROGRAMS BASED ON AMI.

A. As part of the Potential Study, DESC modeled a suite of new direct load control and other measures for residential and commercial customers that would rely on AMI being installed. Within the five-year program planning cycle, none of these new DR programs were found to be cost-effective and thus none were pursued further due to the cost of installing AMI as a DSM program expense. However, the Potential Study showed that a rollout of AMI system-wide outside of the DSM context would support additional expansion of these DR programs.

As described in DESC's Petition for an Accounting Order filed in Docket No. 2019-241-EG, DESC has decided to undertake a multi-year program to install AMI for residential and commercial electric customers throughout its system. Planning for AMI equipment procurement and contracting for installation of AMI will take place in the coming months. DESC anticipates phasing the AMI installation over several years, ultimately resulting in the installation of over 760,000 electric AMI meters at a cost of approximately $98 million.

The Potential Study indicated that, with a sufficient saturation of AMI in place, commercial direct water heater control and residential and commercial direct thermostat control measures could be cost effective. But creating program plans for these measures would be premature at this time. Instead, program plans will be assessed as the installation of AMI meters reaches an appropriate level of saturation and can support cost-effective DR programs. Any additional DR program plans will be presented for review in future filings with the Commission.

<u>RATE RIDER REVISIONS</u>

Q. WHAT REVISIONS TO THE RATE RIDER MECHANISM DOES DESC PROPOSE IN ITS REQUEST?

A. As Company Witness Rooks will explain, DESC seeks approval to continue the rate rider approved in Order No. 2010-472 and Order No. 2013-826 with the following changes:

a) The unrecovered balance of DSM program costs would be amortized for rate recovery over a three-year period, instead of a five-year period;
b) The carrying costs rate applied to the unrecovered balance of DSM program costs, as approved in Commission Order No. 2015-307, would be changed to the Company's embedded cost of long-term debt; and
c) The shared savings incentive would be increased to 11.5%, in accordance with S.C. Code Ann. § 58-37-20, to provide the Company with a reasonable financial incentive to continue to implement effective DSM programs.

Q. PLEASE EXPLAIN THE REASONING FOR THE PROPOSED CHANGES.

A. Company Witness Rooks will explain the reasoning for changes (a) and (b) above in more detail. In summary, shortening the recovery period for program expenses results in a better matching of spending and cost recovery. It also reduces the size of unrecovered balances of program costs, which are a regulatory liability on the Company's balance sheet that are subject to carrying costs.

The change in carrying cost to the long-term cost of debt is proposed because it more closely matches carrying costs to the Company's actual cost of capital for expenses of this type. Relying solely on long-term debt strikes a middle ground because it does not include the Company's cost of equity, which is a higher cost but equally valid component of long-term financing.

S.C. Code Ann. § 58-37-20 requires that DSM programs be structured so that the Company's income "is at least as high as the net income would have been if the energy conservation measures had not been implemented." In the proposed suite of programs, DESC is essentially doubling spending and energy savings from its DSM programs for its customers. A shared savings incentive of 11.5% is consistent with the level of incentive provided to other utilities and provides a modest but important increment to earnings to reflect the heightened level of programming and investment in DSM programs.

Q. OTHER THAN AS DESCRIBED ABOVE, ARE THERE ANY OTHER CHANGES TO THE COST RECOVERY MECHANISM BEING REQUESTED?

A. No, DESC's requested changes to the cost recovery mechanism are limited to those three items.

CONCLUSION

Q. WHAT ARE YOU ASKING THE COMMISSION TO DO IN THIS PROCEEDING?

A. The Company respectfully requests that the Commission approve the proposed suite of expanded and modified DSM programs for a five-year term; continue to authorize DESC to modify, expand, amend, terminate or add any measure or program to its suite of DSM programs going forward without the requirement to seek prior Commission approval to do so; reaffirm the DSM Rate Rider mechanism with the requested modifications; approve the described changes to program cost recovery and shared savings incentive; and otherwise reaffirm its approvals as set forth in prior orders, and the mechanism for the ongoing review, updating and approval of the terms of the Company's DSM programs and DSM Rate Rider.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.